



BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

www.miamidade.gov

NOTICE OF ACCEPTANCE (NOA)

Metal Tech, Inc.
7635 West 2nd Court
Hialeah, FL 33014

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Aluminum Hinged Colonial Shutter

APPROVAL DOCUMENT: Drawing No. 280002, titled "Maximum Impact Colonial Shutter", sheets 1 through 6 of 6, prepared by Ramms Engineering, Inc., dated May 09, 2008, signed and sealed by Robert S. Monsour, P.E., bearing Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
09/04/2008

NOA No. 08-0520.09
Expiration Date: 09/04/2013
Approval Date: 09/04/2008
Page 1

Metal Tech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 280002, titled "Maximum Impact Colonial Shutter", sheets 1 through 6 of 6, prepared by Ramms Engineering, Inc., dated May 09, 2008, signed and sealed by Robert S. Monsour, P.E.*

B. TESTS

1. *Test report on Large Missile Impact Test, Cyclic Wind Pressure Test, and Uniform Static Air Pressure Test of colonial shutters, prepared by American Test Lab of South Florida, Report No. 0907.01-07, dated December 04, 2007, signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E.*

C. CALCULATIONS

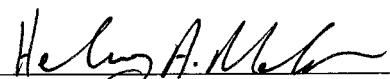
1. *Anchor analysis dated 07/24/2008, 6 Pages, prepared by Ramms Engineering, Inc., signed and sealed by Robert S. Monsour, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *None.*



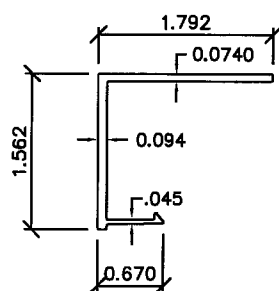
Henry A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 08-0520.09
Expiration Date: 09/04/2013
Approval Date: 09/04/2008



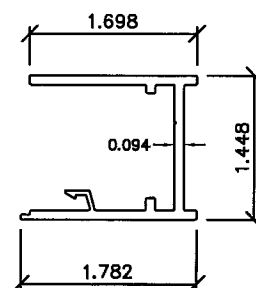
METALTECH, INC.

MAXIMUM IMPACT

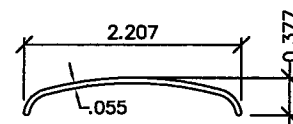
DURAWELD COLONIAL SHUTTER



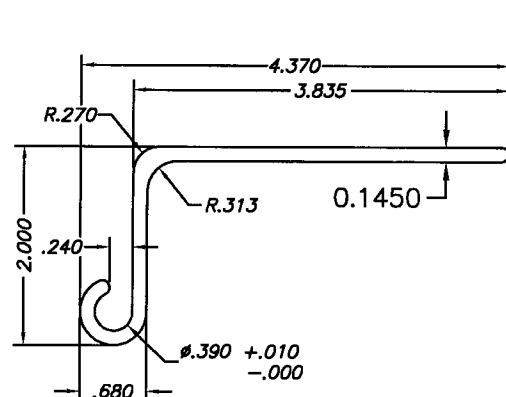
① SNAP CAP



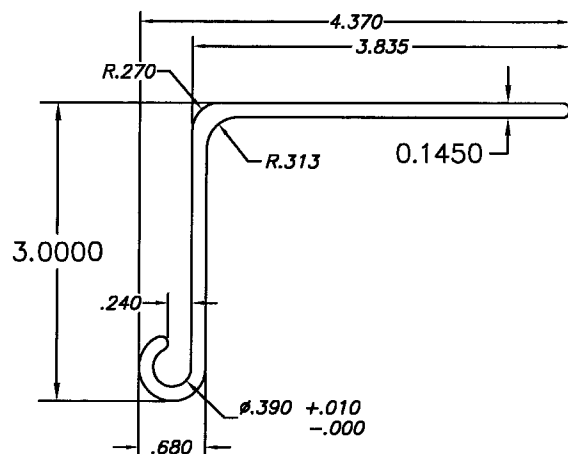
② OUTER FRAME



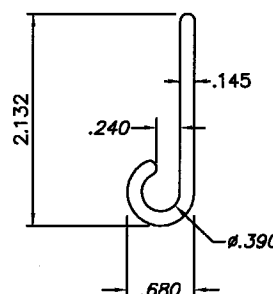
③ BLADE



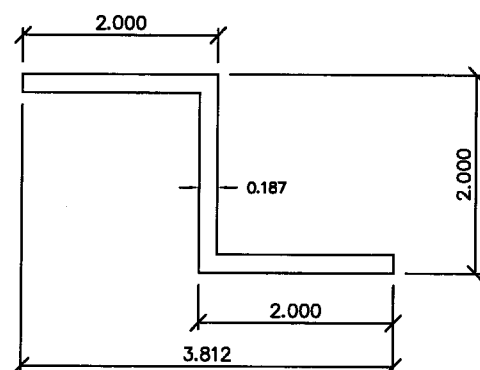
④ FEMALE HINGE
3" IN LENGTH



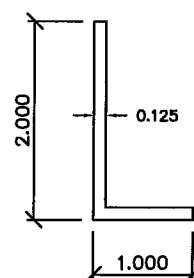
⑤ B/O FEMALE HINGE
3" IN LENGTH



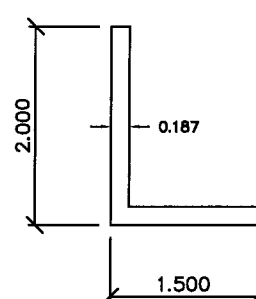
⑥ MALE HINGE
3" IN LENGTH



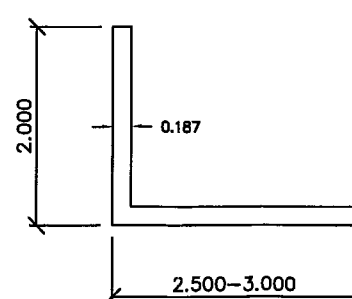
⑦ TIE DOWN Z BRACKET
ALTERNATE TO ⑨ 4" IN LENGTH



⑧ CORNER KEY



⑨ TIE DOWN ANGLE BRACKETS
4" IN LENGTH



⑩ TIE BACK BULLETS
AND CLIPS

NOTES:

HIGH VELOCITY HURRICANE ZONE

THIS METAL TECH COLONIAL SHUTTER COMPLIES WITH THE FLORIDA BUILDING CODE

FBC CERTIFIED TESTING IN ACCORDANCE WITH TAS 201-94 AND 202-94 AND 203-94 PROTOCOLS.

MINIMUM DESIGN LOADS CALCULATIONS PERFORMED PER ASCE 7 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

ALL ALUMINUM EXTRUSIONS TO BE ALLOY 6063-T6

BACKING SHALL BE .093 THICK POLYCARBONATE SECURED WITH #64 or #68 S.S. POPRIVETS 11" O.C. MAX.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT HINGES SHALL BE WITH 1/4" MASONRY SCREWS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT BRACKETS SHALL BE 1/4-20 MACHINE SCREW ANCHOR WITH 7/8" MINIMUM EMBEDMENT OR FEMALE PANELMATE WITH 1/4-20 M/S (FLOOR PLUG) WITH 1 1/4" MINIMUM EMBEDMENT OR 1/4" MALE PANELMATE WITH 1/4-20 WASHERED WINGNUTS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO WOOD AT HINGES SHALL BE 1/4" WOOD LAGS WITH 1" MIN. EMBEDMENT OR 1/4" MASONRY SCREWS WITH 1 7/8" MINIMUM EMBEDMENT

ANCHORAGE OF SHUTTER TO WOOD AT BRACKETS SHALL BE 1/4" MALE PANELMATES WITH 1/4-20 WASHERED WINGNUTS OR 1/4" FEMALE PANELMATE WITH 1/4-20 M.S. (FLOOR PLUG) WITH 1 7/8" MINIMUM EMBEDMENT.

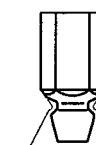
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO ENSURE PROPER ANCHORAGE.

EACH COLONIAL SHUTTER SHALL BEAR PERMANENT LABEL SHOWING METAL TECH, INC. HIALEAH, FL - MIAMI DADE COUNTY PRODUCT CONTROL APPROVED

Approved as complying with the
Florida Building Code
Date 09/04/2008
NOAH 08-0520-09
Miami Dade Product Control
Division
By *Robert S. Monsour*



SMALL



LARGE

ROBERT S. MONSOUR, PE
11955
RAMMS ENGINEERING, INC.

REVISIONS	BY

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HIALEAH, FLORIDA 33016
TELEPHONE:
305-822-3141
11955
EB 0006024

MAXIMUM IMPACT COLONIAL SHUTTER
METALTECH, INC.
7835 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
EXPORTED WORLD-WIDE

DATE SEP / RSM
DATE 05/09/2008
SCALE SHOWN
NO. 280002
SHEET 1
6

HIGH VELOCITY HURRICANE ZONE

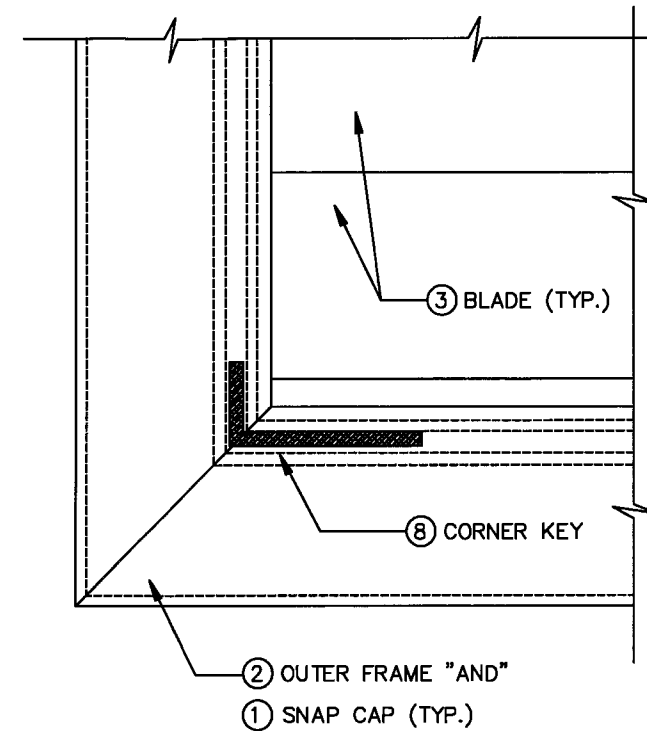
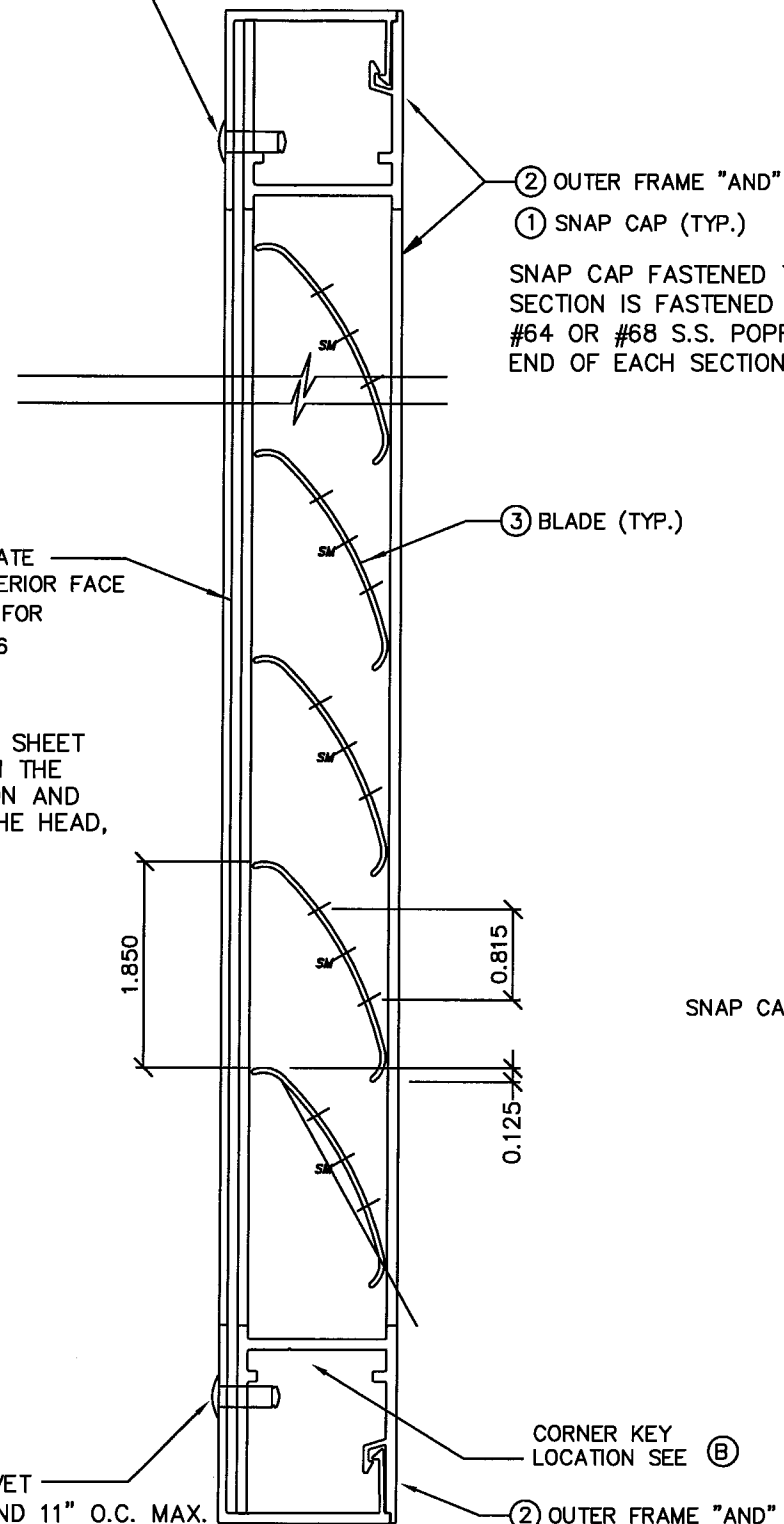
#64 or #68 S.S. POPRIVET
4 1/2" IN FROM END AND 11" O.C. MAX.
AROUND PERIMETER OF EACH SECTION
OF POLYCARBONATE (TYP.)

.093 THICK POLYCARBONATE
BACKING (TYP.) ON EXTERIOR FACE
OF EACH PANEL EXCEPT FOR
DETAIL "K" SHEET 5 OF 6

THE POLYCARBONATE SHEET
IS INSERTED BETWEEN THE
OUTER FRAME SECTION AND
THE SNAP CAP AT THE HEAD,
JAMBS, AND SILL.

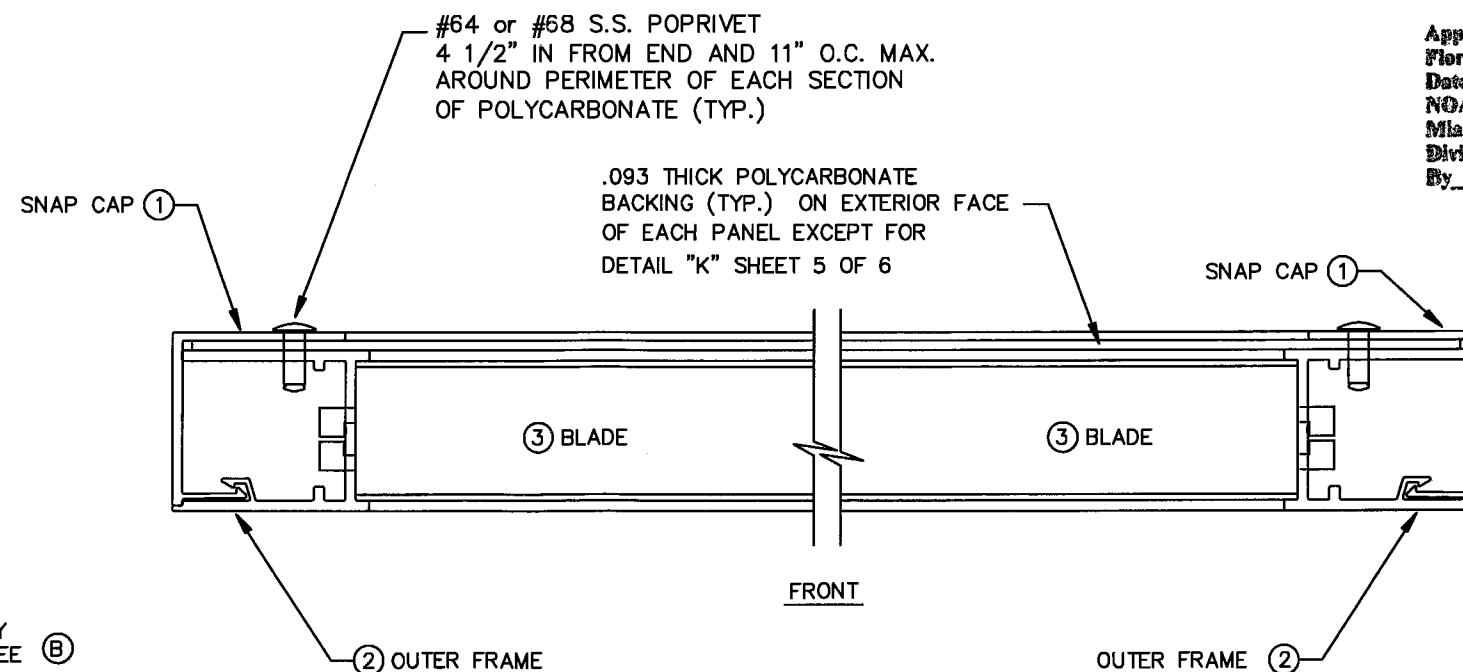
#64 or #68 S.S. POPRIVET
4 1/2" IN FROM END AND 11" O.C. MAX.
AROUND PERIMETER OF EACH SECTION
OF POLYCARBONATE (TYP.)

(A) TYPICAL CROSS SECTION ASSEMBLY

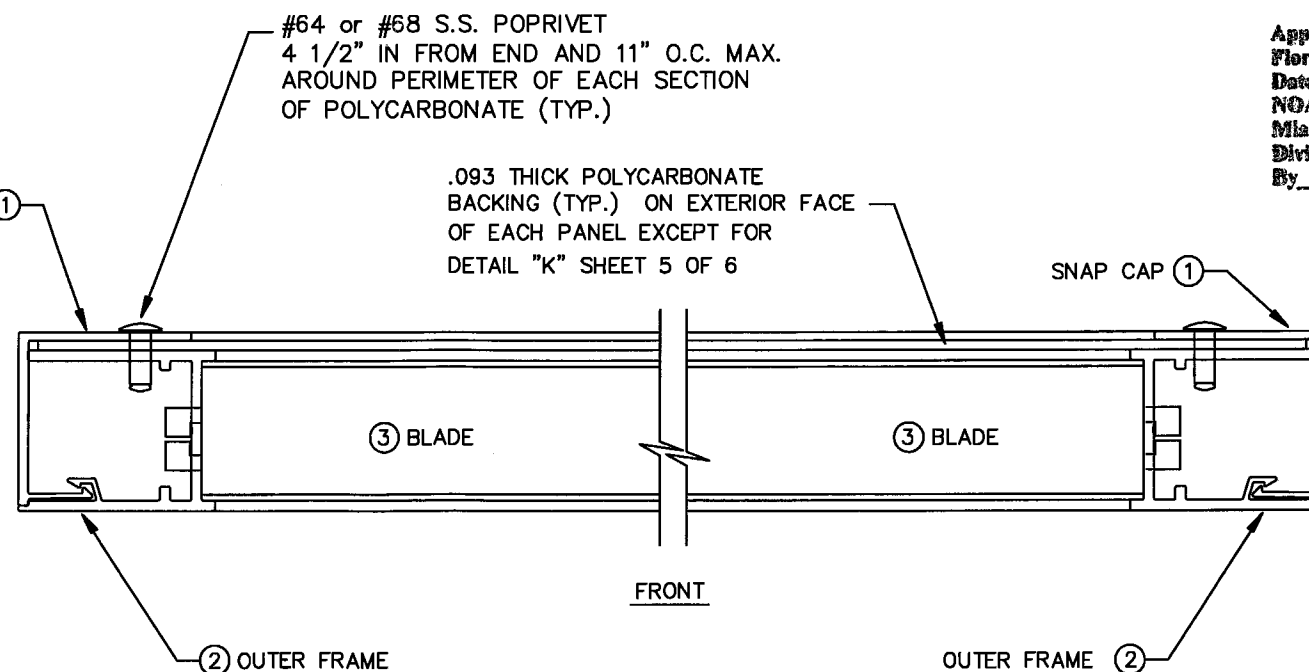


(B) CORNER KEY DETAIL ELEV.

SILL AND HEADER ATTACHED TO EACH JAMB
WITH CORNER KEY TACK WELDED TO SILL, JAMBS
AND HEADER. EACH MITER CORNER CUT IS
WELDED.



(C) BLADE PUNCH DETAIL



(D) PLAN VIEW CROSS SECTION

Approved as complying with the
Florida Building Code
Date 09/04/2008
NOA# 08-0520-09
Miami Dade Product Control
Division
By *Helmy A. Matar*

Monsour
1/30/08
ROBERT S. MONSOUR, PE
11955
RAMMS ENGINEERING, INC.

RAMMS ENGINEERING, INC.

Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016

TELEPHONE:
305-822-3141

11955
EB 0006024

METALTECH, INC.
7635 W. SECOND CT. HALEAH, FL 33014

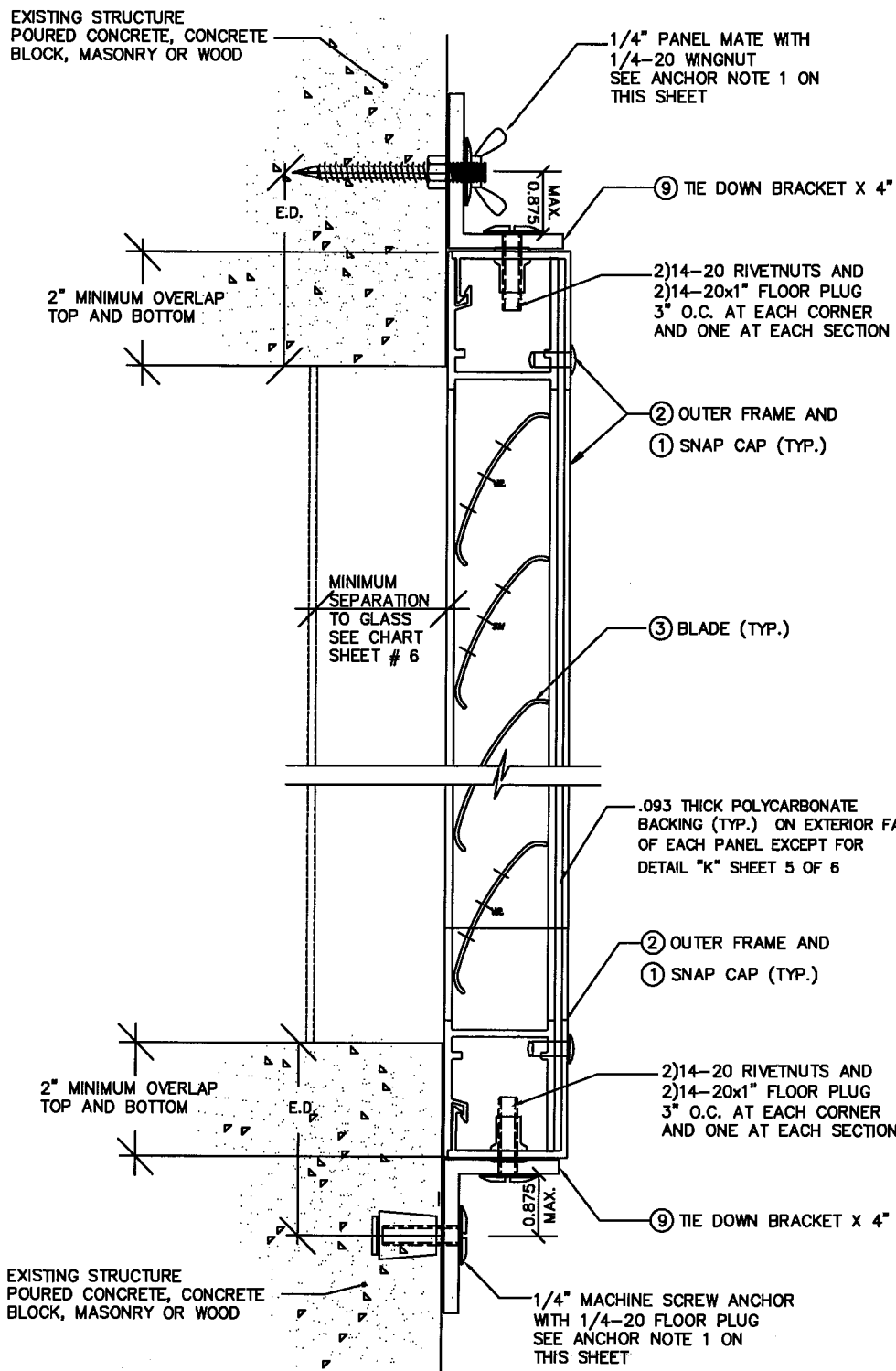


SEP / RSM
APPROVED
DATE
05/09/2008
SCALE
SHOWN
JOB
280002
SHEET

2

6

HIGH VELOCITY HURRICANE ZONE



E WALL MOUNT CROSS SECTION
HURRICANE POSITION

ANCHOR NOTE 1:

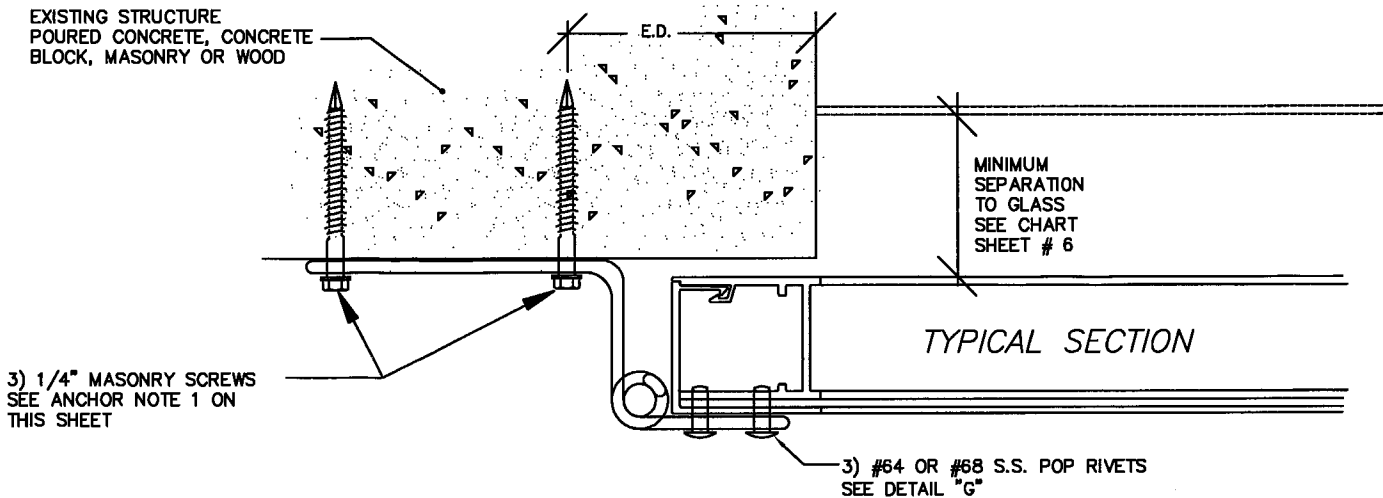
ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT WALL HINGES SHALL BE WITH 1/4" MASONRY SCREWS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT BRACKETS SHALL BE 1/4-20 MACHINE SCREW ANCHOR OR FEMALE PANELMATE WITH 1/4-20 M/S (FLOOR PLUG) OR 1/4" MALE PANELMATE WITH 1/4-20 WASHERED WINGNUTS

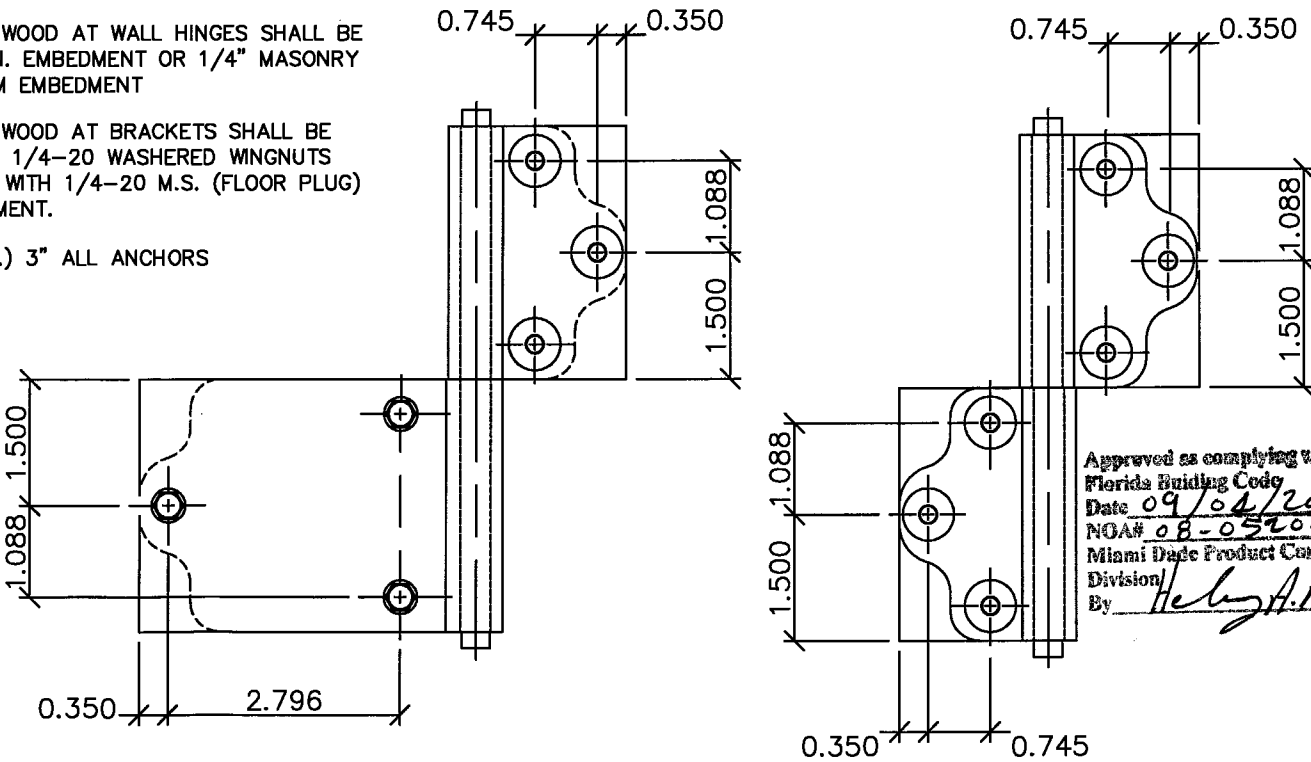
ANCHORAGE OF SHUTTER TO WOOD AT WALL HINGES SHALL BE 1/4" WOOD LAGS WITH 1" MIN. EMBEDMENT OR 1/4" MASONRY SCREWS WITH 1 7/8" MINIMUM EMBEDMENT

ANCHORAGE OF SHUTTER TO WOOD AT BRACKETS SHALL BE 1/4" MALE PANELMATES WITH 1/4-20 WASHERED WINGNUTS OR 1/4" FEMALE PANELMATE WITH 1/4-20 M.S. (FLOOR PLUG) WITH 1 7/8" MINIMUM EMBEDMENT.

MINIMUM EDGE DISTANCE (E.D.) 3" ALL ANCHORS



F WALL MOUNT CROSS SECTION
HURRICANE POSITION



G WALL AND SECTION HINGES
ANCHOR AND RIVET LOCATION

Approved as complying with the
Florida Building Code
Date 09/04/2008
NOAH 08-0520-09
Miami Dade Product Control
Division
By Helmy A. M. M.

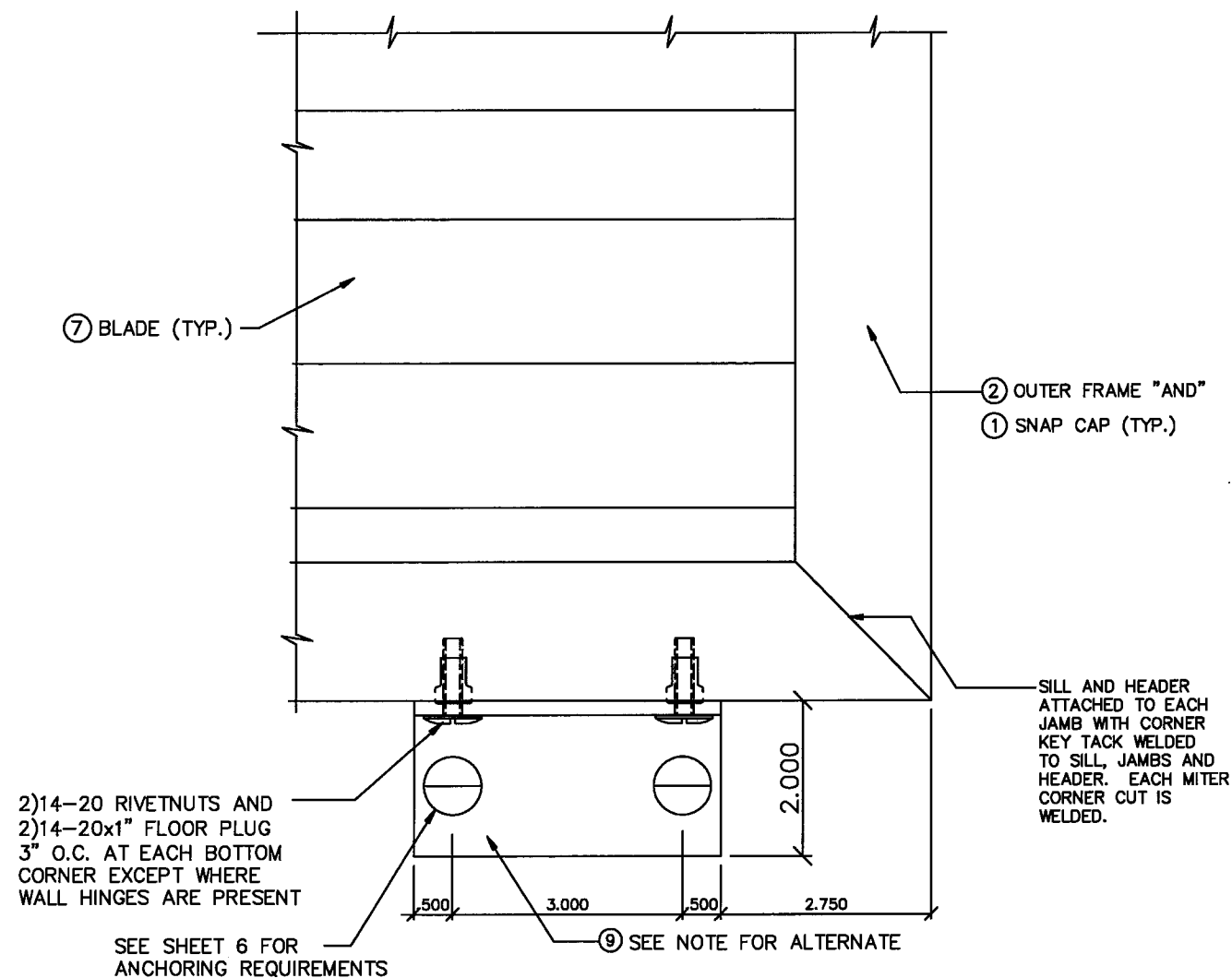
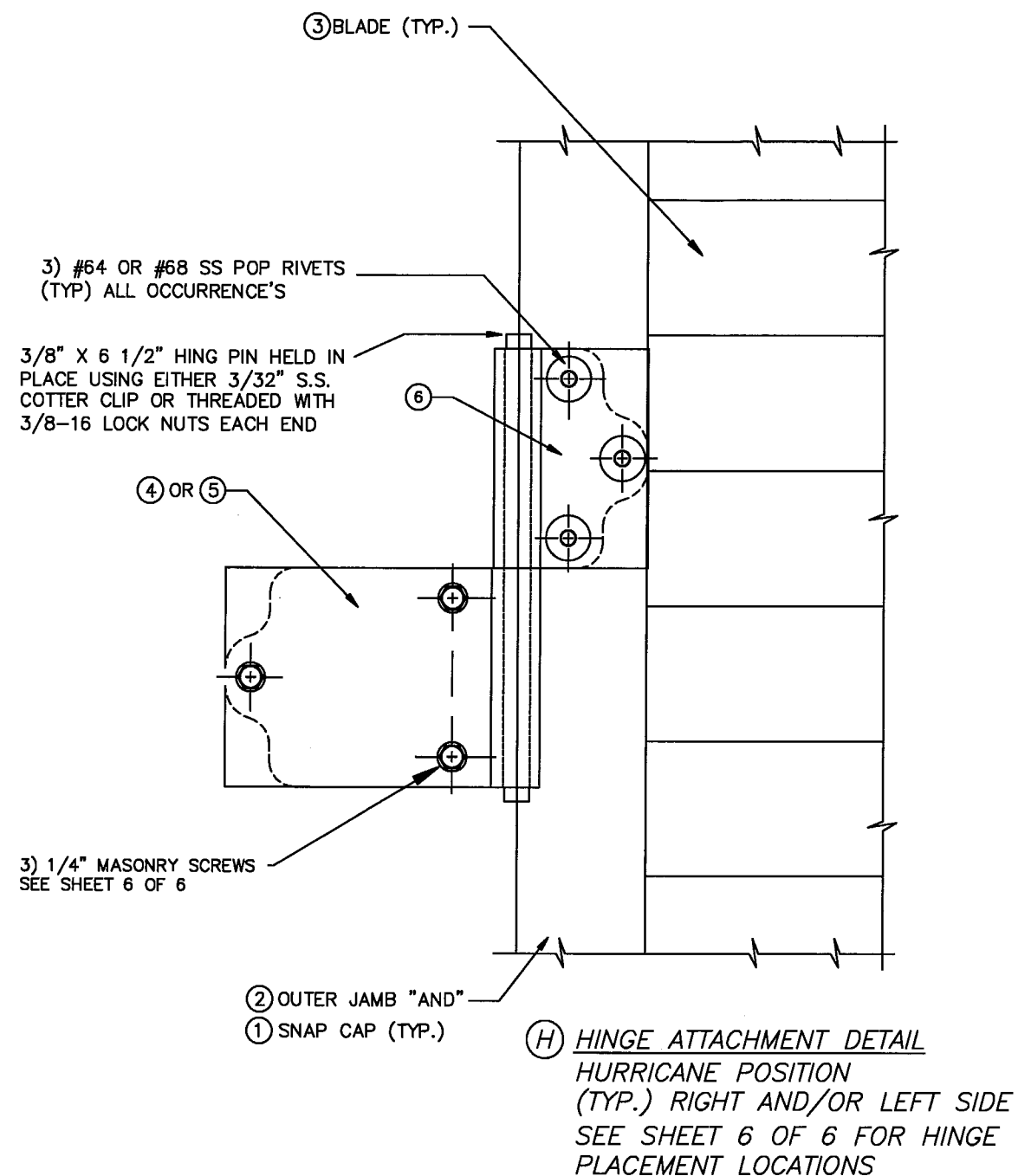
Robert S. Monsour, PE
11955
RAMMS ENGINEERING, INC.

REVISIONS	BY

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
11955
EB 0006024
TELEPHONE: 305-822-3141

EST. 1957
7835 W. SECOND CT. HIALEAH, FL 33014
METALTECH, INC.
WORLDWIDE

SEP / RSM
APPROVED
DATE: 05/09/2008
SCALE: SHOWN
280002
3
6



NOTE:

WHEN #7 TIE DOWN Z BRACKET IS USED AS AN ALTERNATIVE
TO #9 TIE DOWN BRACKETS, THE Z BRACKET IS NOT REQUIRED
TO BE ATTACHED TO THE SHUTTER. THE Z BRACKET ONLY
NEEDS TO BE ANCHORED TO THE WALL.

Approved as complying with the
Florida Building Code
Date 09/04/2008
NOAH 08-0520.09
Miami Dade Product Control
Division
By *Robert S. Monsour*

Robert S. Monsour
ROBERT S. MONSOUR, PE
11955
RAMMS ENGINEERING, INC.

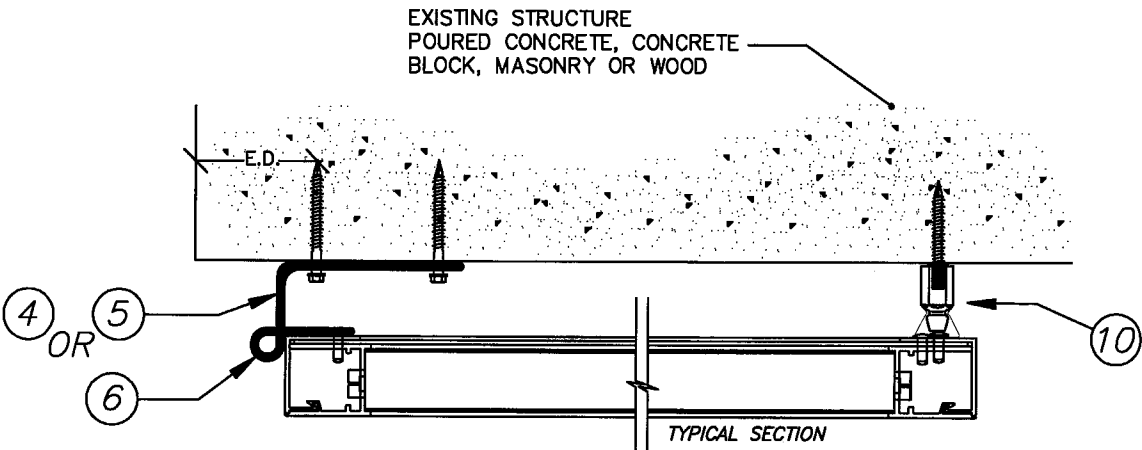
REVISIONS	BY

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Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
11955
EB 0006024
TELEPHONE:
305-822-3141

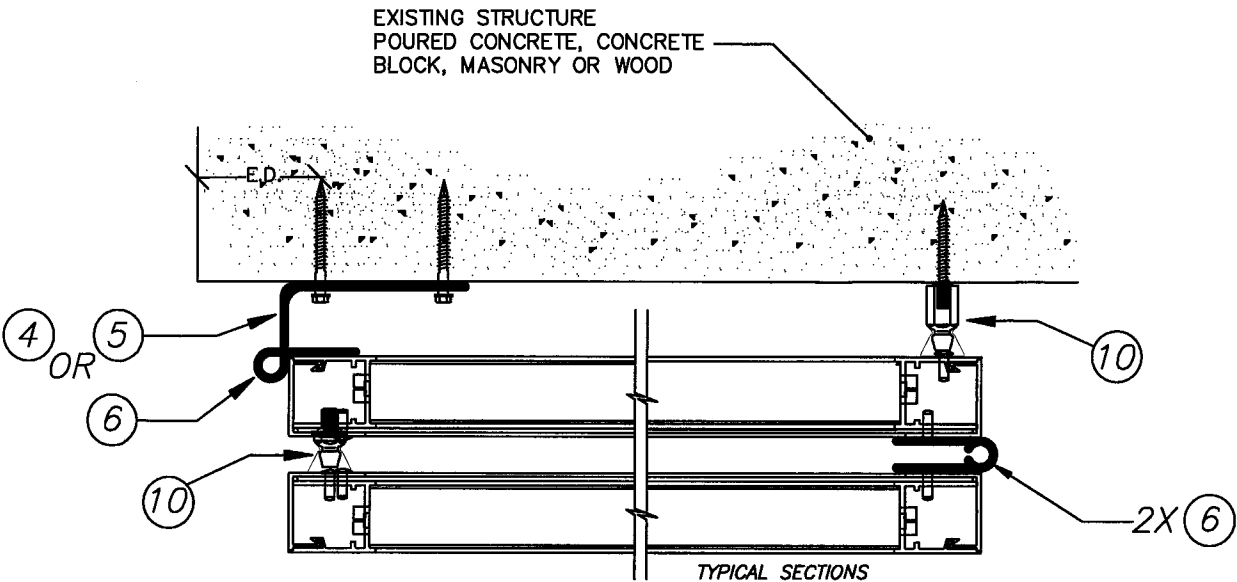
METALTECH, INC.
7835 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
EXPLORED WORLD-WIDE

DATE 05/09/2008	BY RSM
SCALE SHOWN	
NO. 280002	
SHEET 4	6

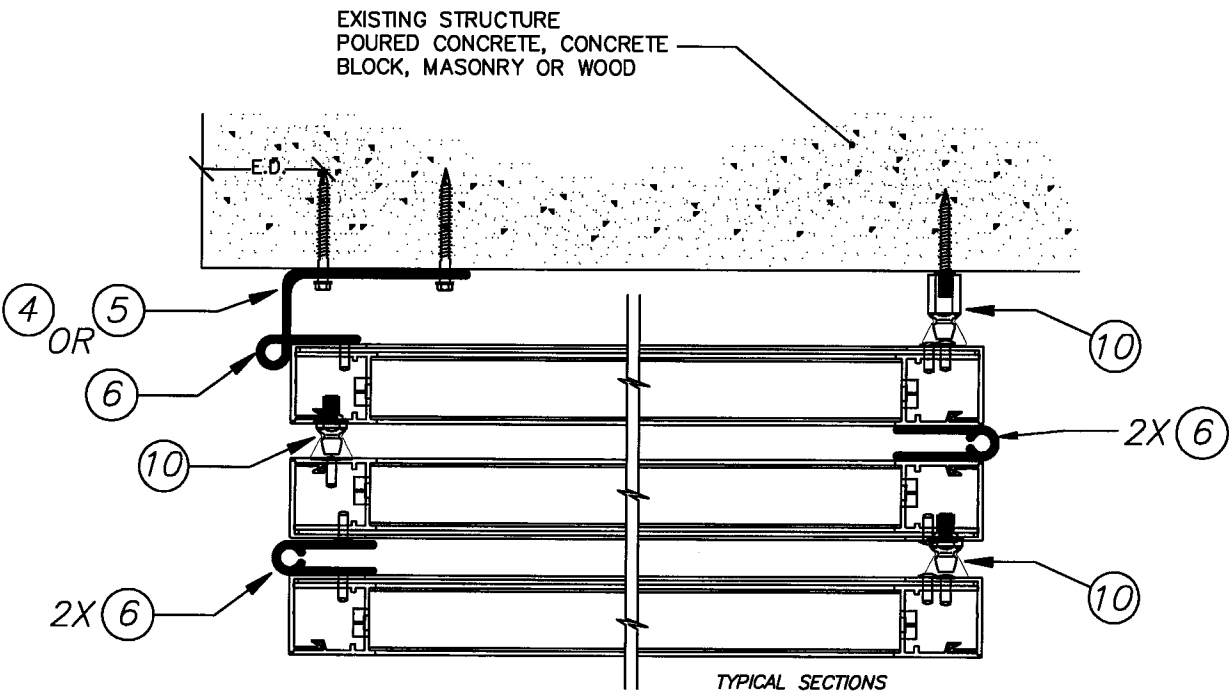
PLAN VIEW STACKING CONFIGURATIONS



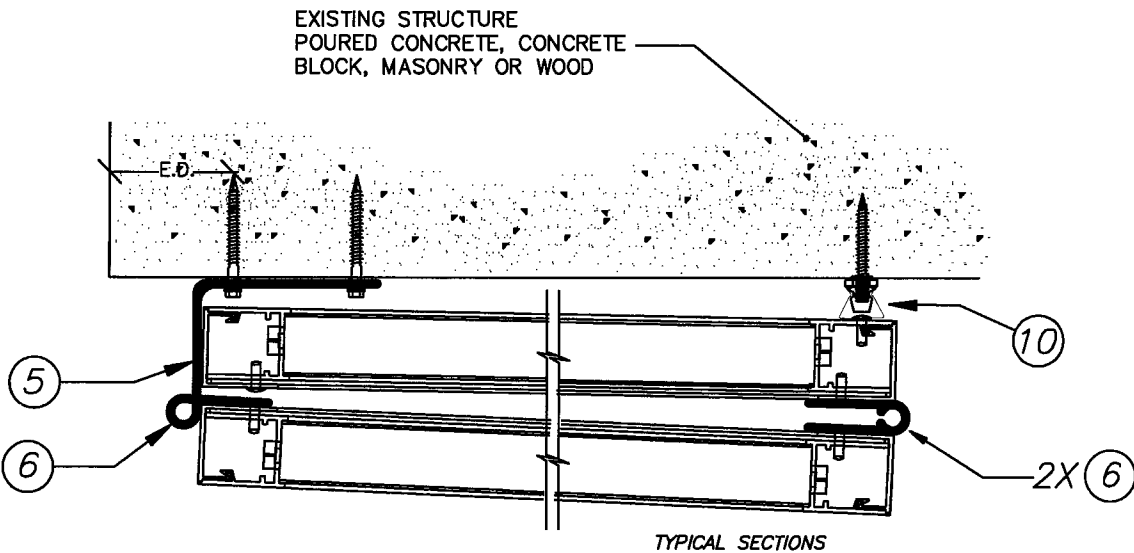
J SINGLE SECTION
NON HURRICANE POSITION
(TYP.) RIGHT AND/OR LEFT SIDE



K DOUBLE SECTION
NON HURRICANE POSITION
(TYP.) RIGHT AND/OR LEFT SIDE
THIS DETAIL HAS A 3 9/16" SEPERATION TO GLASS



L TRIPLE SECTION
NON HURRICANE POSITION
(TYP.) RIGHT AND/OR LEFT SIDE



M DOUBLE SECTION ALTERNATE
NON HURRICANE POSITION
(TYP.) RIGHT AND/OR LEFT SIDE

NOTE:
SEE SHEET 3 AND 6 OF 6 FOR ANCHOR
LOCATIONS AND REQUIREMENTS

Approved as complying with the
Florida Building Code
Date: 09/04/2008
NOA# 08-0520-09
Miami Dade Product Control
Division
By: [Signature]

ROBERT S. MONSOUR, PE
11955
RAMMS ENGINEERING, INC.

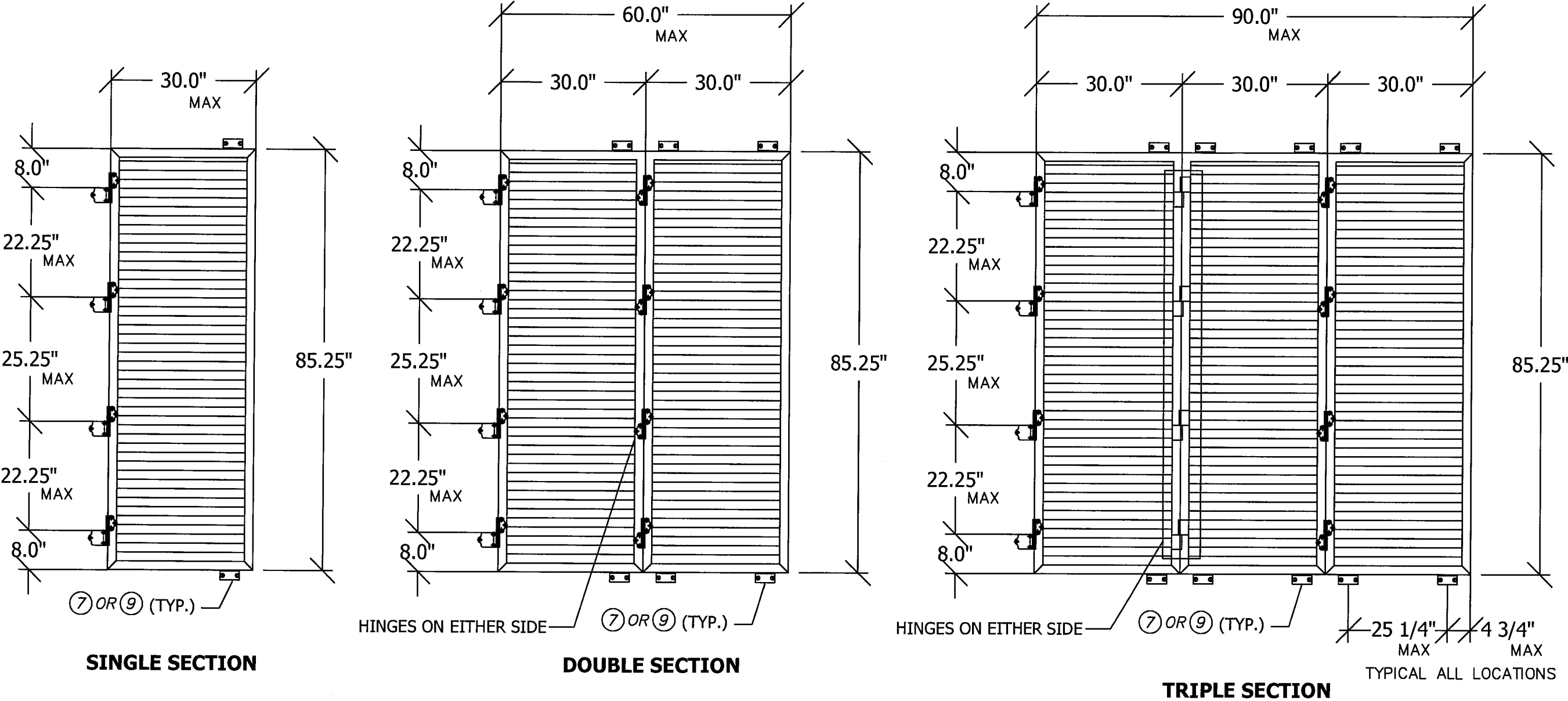
REVISIONS	BY

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
TELEPHONE: 305-822-3141
11955
EB 0006024

METALTECH, INC.
7835 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
EST. 1957
WORLDWIDE

SEP / RSM
10/18/2008
SHOWN
280002
5
6

HURRICANE POSITION ELEVATION VIEWS AND LIMITATIONS



DETAIL "J, L AND M" SHEET 5 OF 6			
DESIGN RATING PRESSURE IN P.S.F.	MAXIMUM SECTION WIDTH	MAXIMUM HEIGHT	MINIMUM SEPARATION TO GLASS
+57.0,-71.8	30"	85 1/4"	2 7/8"

DETAIL "K" SHEET 5 OF 6			
DESIGN RATING PRESSURE IN P.S.F.	MAXIMUM SECTION WIDTH	MAXIMUM HEIGHT	MINIMUM SEPARATION TO GLASS
+57.0,-71.8	30"	85 1/4"	3 9/16"

SEE SHEET 4 OF 6 FOR BRACKET SPECIFICATIONS

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT WALL HINGES SHALL BE WITH 1/4" MASONRY SCREWS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT BRACKETS SHALL BE 1/4"-20 MACHINE SCREW ANCHOR OR FEMALE PANELMATE WITH 1/4"-20 M/S (FLOOR PLUG) OR OR 1/4" MALE PANELMATE WITH 1/4"-20 WASHERED WINGNUTS

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MINIMUM EDGE DISTANCE (E.D.) 3" ALL ANCHORS

Approved as complying with the
Florida Building Code
Date 09/04/2008
NOA# 08-0520.09
Miami Dade Product Control
Division
By Helmy A. Helmy

ROBERT S. MONSOUR, PE
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RAMMS ENGINEERING, INC.

REVISIONS	BY

RAMMS ENGINEERING, INC.
Structural Design
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2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
TELEPHONE: 305-822-3141
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METALTECH, INC.
7635 W. SECOND CT. HIALEAH, FL 33014
EST. 1957
EXPORTED WORLD-WIDE

DATE	SEP / RSM
APPROVED	
DATE	05/09/2008
SCALE	SHOWN
JOB	280002
SHEET	6